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10/647,383	08/26/2003	Kotaro Kaneko	011350-320	2047

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EXAMINER
SHAN, APRIL YING

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☒ Responsive to communication(s) filed on <u>26 August 2003</u>.

2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.

3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) ☒ Claim(s) <u>1-20</u> is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5) ☐ Claim(s) _____ is/are allowed.

6) ☒ Claim(s) <u>1-20</u> is/are rejected.

7) ☐ Claim(s) _____ is/are objected to.

8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) ☐ The specification is objected to by the Examiner.

10) ☒ The drawing(s) filed on <u>26 August 2003</u> is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a) ☒ All b) ☐ Some * c) ☐ None of:

        1. ☐ Certified copies of the priority documents have been received.

        2. ☐ Certified copies of the priority documents have been received in Application No. _____.

        3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
    Paper No(s)/Mail Date <u>8/2003 and 7/2006</u>.

4) ☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____.

5) ☐ Notice of Informal Patent Application

6) ☐ Other: _____.

DETAILED ACTION

1.   Claims 1-20 have been examined.

Priority

2.   Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which

papers have been placed of record in the file.

Claim Rejections - 35 USC § 101

3.   35 U.S.C. 101 reads as follows:

> Whoever invents or discovers any new and useful process, machine, manufacture, or composition of
> matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the
> conditions and requirements of this title.

4.   Claims 1-10 and 19-20 are rejected under 35 U.S.C. 101 because the claimed

invention is directed to non-statutory subject matter.

As per **claims 1-4**, they recite "A computer program for a controlling

apparatus...executing the procedures of confirming...and judging a program..". The

examiner respectfully asserts that the claimed subject matter does not fall within the

statutory classes listed in 35 USC 101. **First**, the claimed steps do not result in a

tangible result. Claims 1-4 are rejected as being directed to an abstract idea (i.e.,

producing non-tangible result) [tangible requirement does require that claim must recite

more than a 101 judicial exception, in that the process must set forth a practical

application of that 101 judicial exception to produce a real-world result, Benson, 409

U.S. at 71-72 USPQ at 676-77). **Further**, a computer program is merely a set of

instructions capable of being executed by a computer, so that the computer program

itself is not a process. Therefore, a claim for a computer program, without the

computer-readable medium needed to realize the computer program functionality, is

treated as nonstatutory functional descriptive material. Therefore, claims 1-4 recite non-statutory subject matter.

As per **claim 5**, it is directed to computer-readable medium having a plurality of sequences of instructions stored thereon for controlling an image forming apparatus. The examiner respectfully asserts that the claimed subject matter does not fall within the statutory classes listed in 35 USC 101. **First**, the claimed steps do not result in a tangible result. Claim 5 is rejected as being directed to an abstract idea (i.e., producing non-tangible result) [tangible requirement does require that claim must recite more than a 101 judicial exception, in that the process must set forth a practical application of that 101 judicial exception to produce a real-world result, Benson, 409 U.S. at 71-72 USPQ at 676-77). **Further**, on page 30, line 1, claim 5 recites "...which, when executed by one or more processors...". It appears to the examiner, "...which, when executed by one or more processors" is optional and can be interpreted as not executing at all.

As per **claims 6-9**, they recite "A computer program for a controlling apparatus... executing the procedures of confirming... and judging a program..". The examiner respectfully asserts that the claimed subject matter does not fall within the statutory classes listed in 35 USC 101. **First**, the claimed steps do not result in a tangible result. Claims 6-9 are rejected as being directed to an abstract idea (i.e., producing non-tangible result) [tangible requirement does require that claim must recite more than a 101 judicial exception, in that the process must set forth a practical application of that 101 judicial exception to produce a real-world result, Benson, 409 U.S. at 71-72 USPQ at 676-77). **Further**, a computer program is merely a set of

instructions capable of being executed by a computer, so that the computer program itself is not a process. Therefore, a claim for a computer program, without the computer-readable medium needed to realize the computer program functionality, is treated as nonstatutory functional descriptive material. Therefore, claims 6-9 recite non-statutory subject matter.

As per **claim 10**, it is directed to computer-readable medium having a plurality of sequences of instructions stored thereon for controlling an image forming apparatus. The examiner respectfully asserts that the claimed subject matter does not fall within the statutory classes listed in 35 USC 101. **First**, the claimed steps do not result in a tangible result. Claim 10 is rejected as being directed to an abstract idea (i.e., producing non-tangible result) [tangible requirement does require that claim must recite more than a 101 judicial exception, in that the process must set forth a practical application of that 101 judicial exception to produce a real-world result, Benson, 409 U.S. at 71-72 USPQ at 676-77). **Further**, on page 31, line 10, claim 10 recites "...which, when executed by one or more processors...". It appears to the examiner, "...which, when executed by one or more processors" is optional and can be interpreted as not executing at all.

As per **claim 19**, it recites a controlling method for a controlling apparatus intended to control an image forming apparatus. The examiner respectfully asserts that the claimed subject matter does not fall within the statutory classes listed in 35 USC 101. The claimed steps do not result in a tangible result. Claim 19 is rejected as being directed to an abstract idea (i.e., producing non-tangible result) [tangible requirement

does require that claim must recite more than a 101 judicial exception, in that the

process must set forth a practical application of that 101 judicial exception to produce a

real-world result, Benson, 409 U.S. at 71-72 USPQ at 676-77).

As per **claim 20**, it recites a controlling method for a controlling apparatus

intended to control an image forming apparatus. The examiner respectfully asserts that

the claimed subject matter does not fall within the statutory classes listed in 35 USC

101. The claimed steps do not result in a tangible result. Claim 20 is rejected as being

directed to an abstract idea (i.e., producing non-tangible result) [tangible requirement

does require that claim must recite more than a 101 judicial exception, in that the

process must set forth a practical application of that 101 judicial exception to produce a

real-world result, Benson, 409 U.S. at 71-72 USPQ at 676-77).

Claim Rejections - 35 USC § 103

5.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set
> forth in section 102 of this title, if the differences between the subject matter sought to be patented and
> the prior art are such that the subject matter as a whole would have been obvious at the time the
> invention was made to a person having ordinary skill in the art to which said subject matter pertains.
> Patentability shall not be negatived by the manner in which the invention was made.

6.   The factual inquiries set forth in *Graham* v. *John Deere Co.*, 383 U.S. 1, 148

USPQ 459 (1966), that are applied for establishing a background for determining

obviousness under 35 U.S.C. 103(a) are summarized as follows:

1.   Determining the scope and contents of the prior art.
2.   Ascertaining the differences between the prior art and the claims at issue.
3.   Resolving the level of ordinary skill in the pertinent art.
4.   Considering objective evidence present in the application indicating
        obviousness or nonobviousness.

7.   Claims 1-2, 5-7, 10-12, 15-16 and 19-20 are rejected under 35 U.S.C. 103(a) as

being unpatentable over "Unix Communication Notes: 129" (provided by the Applicant,

Hereinafter Notes 129) in view of Murakami Seiji (English translated copy of Japan

Patent No. 5108487 provided by machine translation of JPO. Hereinafter Seiji).

As per **claims 6, 10, 15 and 20**, Notes 129 discloses a computer

program/method/apparatus for a controlling apparatus intended to control an image

forming apparatus, executing the procedures of:

confirming each file actually existing in a specified storage area of said

controlling apparatus (e.g. Notes 129, pages 1-2) and judging a file, which is not

included in a preset list of files that are required to exist in the specified storage area of

said controlling apparatus to control the image forming apparatus among files whose

existences have been confirmed, as an illegal file (the act of examining the change of

an existing file list , obtained by using "find" from a file list prepared in advance by using

a "diff command" recited in Notes 129, pages 1-2)

Notes 129 does not expressly disclose an illegal file resulting from computer

virus infection.

However, Seiji discloses judging a program, which is not included in a preset list

of programs that can be run to control ("...basic BIOS 7 is the program group which

stored the basic motion of the computer, and is for controlling hardware 1" – e.g. par.

[0010]) the image forming apparatus ("hardware 1...a printer" – e.g. par. [0009]) among

programs whose running states have been confirmed, as an illegal program resulting

from computer virus infection ("...judgment is required, comparison with the data of the

database memorized beforehand is performed" – e.g. par. [0016], "to forbid the

demand at least in the demand by a computer virus" – e.g. par. [0006] and "Thus, the

existence of infection of a computer virus is distinguished by comparing with all the

data of the database" – e.g. par. [0017]).

It would have been obvious to a person with ordinary skill in the art to replace

Seiji's function of checking virus with Notes 129's function of checking of files against

falsification.

The motivation of doing so would have been "the existence of infection by a

computer virus can be discovered at an early stage, and the invasion and spread after

it can be prevented beforehand", as disclosed by Seiji (par. [0029]).

As per **claim 7**, Notes 129- Seiji discloses a computer program as applied above

in claim 6. Seiji further discloses executes a procedure of automatically

deleting or isolating the file that is judged as illegal file ("..to forbid the demand at least

in the demand by a computer virus" – e.g. par. [0007] and "... spread after it can be

prevented beforehand" – e.g. par. [0028]).

As per claims **1, 5, 11, 19,** they are rejected using the same rationale as rejecting

claims 6, 10, 15 and 20 above.

As per **claims 2, 12, 16**, they are rejected using the same rationale as rejecting

claim 7 above.

8.   Claims 3-4, 8-9, 13-14 and 17-18 are rejected under 35 U.S.C. 103(a) as being

unpatentable over Notes 129- Seiji as applied to claims 1-2, 5-7, 10-12, 15-16 and 19-

20 above, and further in view of Yamamoto (U.S. Patent No. 5,881,151).

As per **claims 3-4, 8-9, 13-14 and 17-18**, Notes 129-Seiji does not expressly disclose wherein the procedure of judging includes a procedure of comparing the name of each file whose existence has been confirmed with the name of each file included in said list and wherein the procedure of judging includes a procedure of comparing the size of each file whose existence has been confirmed with the size of each file included in said list.

Yamamoto discloses wherein the procedure of judging includes a procedure of comparing the name of each file whose existence has been confirmed with the name of each file included in said list and wherein the procedure of judging includes a procedure of comparing the size of each file whose existence has been confirmed with the size of each file included in said list (e.g. col. 1, lines 56-64, col. 2, lines 8-20).

It would have been obvious to a person with ordinary skill in the art to incorporate Yamamoto's wherein the procedure of judging includes a procedure of comparing the name of each file whose existence has been confirmed with the name of each file included in said list and wherein the procedure of judging includes a procedure of comparing the size of each file whose existence has been confirmed with the size of each file included in said list into Notes 129-Seiji.

The motivation of doing so would have been "the existence of infection by a computer virus can be discovered at an early stage, and the invasion and spread after it can be prevented beforehand", as disclosed by Seiji (par. [0029]).

Conclusion

9.   The prior art made of record and not relied upon is considered pertinent to
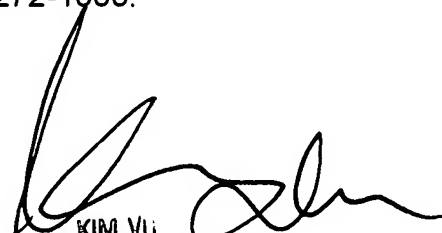
applicant's disclosure. (See PTO-892)

Contact Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to April Y. Shan whose telephone number is (571) 270-1014. The examiner can normally be reached on Monday - Friday, 8:00 a.m. - 5:00 p.m., EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kim Y. Vu can be reached on (571) 272-3859. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

6 June 2007
AYS

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